

**Commonwealth of Kentucky**  
**Division for Air Quality**  
**EXECUTIVE SUMMARY**

PROPOSED  
Title V Operating  
Permit, No. V-06-038  
**Duke Energy Kentucky**  
**East Bend Station**  
Union, Kentucky 41091  
May 9, 2007  
Herbert Campbell, Reviewer  
Source I.D. #           21-015-00029  
Source A.I. #           176  
Activity I.D. #        APE20040006

**SOURCE DESCRIPTION:**

An application for a renewal of the Title V Permit, V-97-015R2, for the Duke Energy Kentucky /East Bend Generating Station was received on June 22, 2004. A nitrogen oxides (NO<sub>x</sub>) budget permit application was received on June 16, 2003. The new Title V permit will include a renewal of the Phase II Acid Rain Permit and the NO<sub>x</sub> Budget Permit.

The source is an electric power generating station consisting of one (1) pulverized coal-fired boiler. The boiler (E. Unit 02) has an input capacity of 6313 MMBtu/hr. The unit is wall-fired, equipped with an electrostatic precipitator (ESP), flue gas desulfurization (FGD) unit, low nitrogen oxide burners and a Selective Catalytic Reduction (SCR) unit. In addition, ash, coal and limestone related equipment as well as a synfuel operation for the binding of coal fines to form coal pellets is utilized.

The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of particulate matter less than 10 microns (PM<sub>10</sub>), carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and sulfur dioxide (SO<sub>2</sub>).

The processes that are new or different from the most recent source-wide Title V renewal permit application include:

1. Installation of the Selective Catalytic Reduction (SCR) unit for reduction of nitrogen oxides from E. Unit 2.
2. A Synfuel Production facility (E. Unit 15) has been added at the facility.
3. Metal Cleaning Degreasers (E. Unit 7) have been removed as stated in the letter of notification dated November 3, 2000.

## **PUBLIC AND AFFECTED STATE REVIEW:**

The affected states (Ohio and Indiana) were notified of the issuance of the draft permit via e-mail. On January 18, 2007, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *The Community Press and Recorder* in Florence, Kentucky. The public comment period expired 30 days from the date of publication.

Comments were received from Duke Energy Kentucky on February 19, 2007. Minor changes were made to the permit as a result of the comments received, however the Division has concluded that the proposed operation will comply with all air quality regulations and requirements. Therefore, the Division has made a final determination to issue a proposed permit. The proposed permit will become final upon approval of the EPA.